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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,151	03/06/2002	Frederick G. Kaestner JR.	101524.000001	9215

23828 7590 10/18/2004		EXAMINER
JAMES C. EAVES JR. GREENEBAUM DOLL & MCDONALD PLLC 3500 NATIONAL CITY TOWER 101 SOUTH FIFTH STREET LOUISVILLE, KY 40202		WANG, JIN CHENG

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/092,151	KAESTNER, FREDERICK G.
	Examiner	Art Unit	
	Jin-Cheng Wang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 July 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-10,21 and 22* is/are pending in the application.

 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-10,21 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____ .

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

The Office Action is in response to the amendment dated 07/28/2004. Claim 1 has been amended. Claims 5, 11-20 have been canceled. Claims 21-22 have been newly added. Claims 1-4, 6-10 and 21-22 are pending in the present application.

Response to Arguments

Applicant's arguments filed July 28, 2004 have been fully considered but they are not persuasive. As addressed below, Lemelson teaches the claimed limitations. Lemelson teaches for example, in column 6, lines 9-57, activation control functions effected by a remote computer 60 and a microprocessor 31, controls the operations of the various electronic components and subsystems connected thereto including the control for the activation of the sensors for measurement, recording, printing and playback of data measurements of patient data. It is stated "a temperature sensor 25 and a blood pressure or pulse sensor 36 are shown and may be supported adjacent each other on a common mount, such as the end of tube 24, to simultaneously or **sequentially** sense temperature and pulse or heart beat...Manual push-button or membrane switches 17 and 18 respectively **connect** sensors 25 and 36 to either a common or respective analog-to-digital converters 43 and 44..." In column 8, lines 51-67 and column 11, lines 58-67, Lemelson teaches a calibration electronic circuit in the form of logical microelectronic circuitry connected for two-way communication with the microprocessor 31 and operable under the control of the microprocessor to analyze signals generated by the temperature sensor 25 when it is first energized after switches 17 and 51 are activated, for the purpose of calibrating the

thermometer... a temperature calibration circuit shown connected for two way communication

with the microprocessor 31 to permit *periodic automatic and/or user activated calibration of the*

temperature sensor 25... Such calibration may be effected by electronic signal analysis and/or by

applying a known current to a small resistor (the net effect is applying power to the sensor

from the microprocessor) located adjacent the temperature sensor 25, **for a short select period**

of time under the control of the microprocessor 31 which gates the resulting output of the

sensor to a signal comparator in the circuit 61 or the microprocessor 31. Therefore, Lemelson

teaches a control unit comprising the microprocessor and a plurality of push buttons or switches

for activating or energizing power and/or for *applying current to a small resistor and thereby*

applying power to a small resistor and thus operating power to the temperature sensor or a

plurality of temperature sensors or sensing means such as temperature sensor 25 and other

photo sensing means such as photodetector mounted adjacent to the temperature sensor 25;

column 12, lines 30-41; at select period of time under the control of the microprocessor 31.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-4, and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by

Lemelson U.S. Patent No. 5,181,521 (hereinafter Lemelson).

3.   Claim 1:

Lemelson teaches an electronic device for acquiring, storing, and displaying data

comprising:

A processor (microprocessor 31 of Figure 2) having a read only memory (ROM 40 of

Figure 2) for storing processor instructions, a random access memory (RAM 38 of Figure 2) for

storing data (column 6, lines 30-40), and having a plurality of data output channels (See Figure 2

wherein the microprocessor 31 have a plurality of data output channels such as data to the I/O

interface 46 or data output to the printer 50, display 12. See also column 12);

A plurality of sensor inputs for accepting data signals (the thermometer sensor assembly

23 of Figure 1, an electro-optical sensing assembly 20 of Figure 1; a temperature sensor 25 of

Figure 2, a blood pressure or pulse sensor 36 of Figure 2. See column 4, lines 50-60; column 5);

A plurality of push buttons electrically coupled to the processor for configuring a

plurality of user-configurable parameters (e.g., manual push-button or membrane switches 17

and 18 respectively connect sensors 25 and 36 to either a common or respective analog-to-digital

converters 43 and 44, which transmit digital indications of body temperature and pulse to

respective inputs to the microprocessor 31, column 6, lines 25-30; column 6, lines 58-67; column

7, lines 1-24);

A visual display having an input coupled to a data output channel from the processor

(display 12 of Figure 2 has an input coupled to a data output channel from the microprocessor 31

of Figure 2; or a display connected to the I/O Interface 46 wherein the I/O Interface 46 is viewed

as a data output channel from the microprocessor 31) for displaying data in a graphical format

(operating a display such as a video display terminal to generate graphical displays or graphs;

column 4, lines 40-46; column 8, lines 15-28) and operator interface menus (such as the push

buttons for performing a plurality of functions wherein the selected items such as temperature or

pressure or a series of temperatures are displayed when selected; column 6 and 10-12);

A speaker electrically connected to the processor alarm output for producing an audible

alarm (e.g., a pulse rate *alarm* 37 driven by an attendant driver 37D for energizing a lamp and/or

beeper or tone generator when the pulse rate of a person to whom the transducer 36 coupled,

exceed a present rate as programmed in the memory of the pulse-rate computer 39 by the

selective operation of the key switches or keyboard 39; column 7, line 40-64; column 9, lines 20-

30);

A real-time clock for timing intervals between data samples and time-stamping the

samples (e.g., The microprocessor 31 also signals an electronic clock 59 which is always driven

by a battery 52 to cause code signals generated thereby which are indicative of date and time of

day to be transmitted through the microprocessor to the unit or units recording the sensed data

for recording therewith; column 6, lines 35-45. The current measurement(s) data together with

date and time data from *the clock or signal generator 59* are recorded as digital code or record

signals on one track of the magnetic tape of the recorder; column 10, lines 1-10; Additional

features of system 30 include an oscillator clock 45 connected to microprocessor 31 and utilized

thereby to provide accurate timing signals for controlling the operation of such devices a

memories 37, 38 speech signal generator 55, pulse rate computer 39 and any of the other devices

requiring proper timing signals, when activated; column 7, lines 65-67; column 8, lines 1-5);

A *serial* port for transmitting and receiving data to and from a remote device (e.g., I/O

Interface 46 for providing two-way communication with the remote computer 60; Figure 2. The

data is *serially* or selectively reproduced and *passed* to the remote computer 60; column 8, lines

6-28; transmission from the interface 46 to a remote recorder or computer via *wire or short wave*

means; column 10, lines 40-67. See also the plurality of receptacles 11B, 11C and 11D for

respectively connecting a source of charging current to a rechargeable battery in the housing, a

cable conductor for a physiological sensor and a cable extending to an external memory or

communication network such as associated with a remote computer, e.g., a remote pulse rate

computer; column 4, lines 61-67);

A plurality of data sensors (a temperature sensor 25 and a blood pressure or pulse sensor

36) responsive to a measurable variable (physiological variable such as a temperature or pulse;

column 6, lines 15-57), said sensors each having an output representative of said physical

variable coupled to one of the sensor inputs of said control unit (e.g., column 6), wherein said

control unit further comprises a power management system for supplying operating power to

said plurality of data sensors only at predetermined data sampling intervals (column 11, line 58

to column 12, line 41 wherein a temperature transducer 25 being energized after switches 17 and

51 are activated; column 8, lines 55-60; column 4, lines 61-67. *Lemelson teaches a temperature*

calibration circuit shown connected for two way communication with the microprocessor 31 to

permit periodic automatic and/or user activated calibration of the temperature sensor 25...Such

*calibration may be effected by electronic signal analysis and/or by **applying a known current to***

***a small resistor** wherein the net effect is applying power to the sensor from the microprocessor*

***for a short select period of time under the control of the microprocessor 31** which gates the*

resulting output of the sensor to a signal comparator in the circuit 61 or the microprocessor 31.

Lemelson teaches a control unit comprising the microprocessor and a plurality of push buttons

or switches for activating or energizing power and/or for applying current to a small resistor

and thereby applying power to a small resistor and thus operating power to the temperature

sensor or a plurality of temperature sensors or sensing means such as temperature sensor 25

and other photo sensing means such as photodetector mounted adjacent to the temperature

sensor 25; column 12, lines 30-41; at select period of time under the control of the

microprocessor 31).

4.   Claim 2:

The Claim 2 encompasses the same scope of invention as that of the Claim 1 except

additional claim limitation of user-configurable parameters include data sampling intervals,

display ranges, high and low alarm values, display intervals, and sensor types.

However Lemelson further discloses the claim limitation of user-configurable parameters

include data sampling intervals (e.g., a select temperature taken at a *select time* of a select living

being and code signals defining all temperature readings taken and recorded or select

temperatures at *select times or dates or temperatures recorded over a select period of time*;

column 5, lines 45-67; column 6, lines 1-8; column 10, lines 40-67), display ranges (e.g., such as

the data values associated with a selected variable having different display ranges over a selected

period of time; column 5, lines 45-67; column 6, lines 1-8; column 7, lines 1-24), high and low

alarm values (temperature alarm 35 may be manually set or set by signals generated when select

keys of keyboard 19 are operated to sound an *alarm* or energize a lamp when the temperature of

a person as it is taken exceeds and/or falls below *select limits; column 7, lines 40-50*), display

intervals (A select time interval or select time and date; column 7, lines 5-15), and sensor types

(e.g., column 6, lines 25-30).

Claim 3:

The Claim 3 encompasses the same scope of invention as that of the Claim 1 except

additional claim limitation of at least one alarm output for triggering a remote alarm. However,

Lemelson further discloses the claim limitation of at least one alarm output for triggering a

remote alarm (e.g., the plurality of receptacles 11B, 11C and 11D for respectively connecting a

source of charging current to a rechargeable battery in the housing, a cable conductor for a

physiological sensor and a cable extending to an external memory or *communication network*

such as associated with a remote computer such as a remote pulse rate computer for generating

pulse rate alarms at the remote computer; column 4, lines 61-67; or the alarm unit such as

temperature alarm 35 or the pulse-rate computer 39 can be remotely attached to the base unit to

generate an alarm; column 7).

Claim 4:

The Claim 4 encompasses the same scope of invention as that of the Claim 3 except

additional claim limitation of at least one user-configured alarm value. However, Lemelson

further discloses the claim limitation of at least one user-configured alarm value (e.g., a

temperature alarm 35 may be manually set or set by signals generated when select keys of

keyboard 19 are operated to sound an *alarm* or *energize* a lamp when the temperature of a person

as it is taken exceeds and/or falls below *select limits; column 7, lines 40-50*).

Claim 6:

The Claim 6 encompasses the same scope of invention as that of the Claim 1 except additional claim limitation of the visual display being capable of displaying historical data supplied by said plurality of data sensors responsive to a push button being selected. However, Lemelson further discloses the claim limitation of the visual display being capable of displaying historical data supplied by said plurality of data sensors responsive to a push button being selected (e.g., column 11).

Claim 7:

The Claim 7 encompasses the same scope of invention as that of the Claim 1 except additional claim limitation of an output port for transmitting and receiving data to and from a remote device. However, Lemelson further discloses the claim limitation of the visual display being capable of an output port for transmitting and receiving data to and from a remote device (e.g., I/O Interface 46 for providing two-way communication with the remote computer 60; Figure 2. The data is *serially* or selectively reproduced and *passed* to the remote computer 60; column 8, lines 6-28; transmission from the interface 46 to a remote recorder or computer via *wire or short wave means*; column 10, lines 40-67. See also the plurality of receptacles 11B, 11C and 11D for respectively connecting a source of charging current to a rechargeable battery in the housing, a cable conductor for a physiological sensor and a cable extending to an external memory or *communication network such as associated with a remote computer*; column 4, lines 61-67).

Claim 8:

The Claim 8 encompasses the same scope of invention as that of the Claim 1 except additional claim limitation of the display graphically representing a plurality of data values in each display column.

However, Lemelson further discloses the claim limitation of the display graphically representing a plurality of data values in each display column (e.g., operating a display such as a video display terminal to generate graphical displays or graphs when computer 60 is detachably connected to the I/O Interface 46; column 4, lines 40-46; column 8, lines 15-28; column 10-11).

Claim 9:

The Claim 9 encompasses the same scope of invention as that of the Claim 1 except additional claim limitation of the display graphically representing data supplied by any one of said plurality of data sensors responsive to a push button selection.

However, Lemelson further discloses the claim limitation of the display graphically representing data supplied by any one of said plurality of data sensors responsive to a push button selection (e.g., operating a display such as a video display terminal to generate graphical displays or graphs in which the computer 60 is detachably connected to the I/O Interface 46 wherein the graphs are displayed by selectively operating manual switch buttons; column 4, lines 40-46; column 8, lines 15-28; column 10-11).

Claim 10:

The Claim 10 encompasses the same scope of invention as that of the Claim 1 except additional claim limitation of graphically representing a statistical value of a plurality of data samples taken from said plurality of sensors in each display interval.

However, Lemelson further discloses the claim limitation of graphically representing a

statistical value of a plurality of data samples taken from said plurality of sensors in each display

interval (e.g., operating a display such as a video display terminal to generate graphical displays

or graphs of *selected historical temperature values for a select time interval* in which the

computer 60 is detachably connected to the I/O Interface 46 wherein the graphs are displayed by

selectively operating manual switch buttons; column 4, lines 40-46; column 8, lines 15-28;

column 10-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson

U.S. Patent No. 5,181,521 (hereinafter Lemelson) in view of Wada U.S. Patent No. 4,447,884

(hereinafter Wada).

Re claims 21 and 22, Lemelson teaches the claim limitations set forth in the claim 1.

However, Lemelson is silent to the claim limitation of each column of the visual display

graphically represents a hi and low data value pair and wherein each column of the visual display

graphically represents a plurality of data sample values representative of a statistical function

configured by a user. Wada discloses an electronic device for acquiring, storing, and displaying

data wherein each column of the visual display graphically represents a hi and low data value

pair (Wada Fig. 4 and column 3) and wherein each column of the visual display graphically represents a plurality of data sample values representative of a statistical function configured by a user (*indicating the temperature variation over a selected period of time in which the operator can configure the selection as shown in Wada column 7*). It would have been obvious for one of ordinary skill in the art to combine numerical and graphical display of bar charts of Wada in Lemelson because it would have enabled to display body temperature variation in graphical and numerical formats (Wada column 1) in which the operator can select the data samples (Wada column 7).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600